

74. Ulverstone STP

74.1 Activity and report details

Activity name	Ulverstone STP		
Activity address	Knights Rd, Ulverstone		
Permit number	Licence to Operate 3391	Date of issue	16/04/1991
EPN	9573/1	Date of issue	5/12/2017
Treatment level	Secondary Treatment		
Authorised dry weather flows	7500 kL/day		
Key influent source	Residential/Industrial		
Contact person	Kate Westgate (Manager Environmental Performance)		
Report author	Jake Crisp (Environmental Scientist)		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 74-1: Ulverstone Sewage Treatment Plant



74.2 Monitoring and compliance summary

74.2.1 Flow data

Table 74-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Plant Inlet	Bass Strait	No reuse scheme
Coordinates	E 428473 N 5443293	E 430028 N 5445977	NA
Method of measurement	Level sensor	Estimation based on influent	NA
Date of last calibration/validation (if applicable).	08/10/2024	NA	NA

Table 74-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 91186	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2024	2,826	127.8	87.61	--
August 2024	2,826	180.2	87.61	--
September 2024	2,920	125.2	87.61	--
October 2024	2,826	75.8	87.61	--
November 2024	2,920	72.8	87.61	--
December 2024	3,864	103.8	119.78	--
January 2025	3,288	81.4	101.93	--
February 2025	3,275	13	91.69	--
March 2025	4,177	27.2	129.47	--
April 2025	3,590	38.6	107.70	--
May 2025	3,474	39.8	107.70	--
June 2025	6,924	104.4	207.72	--
Annual 2024-25	3,573	990	1,304.02	0.00
% of total discharge	--	--	100.0%	0.0%

2024-25 monthly flow data was submitted directly to the EPA.

74.3 Bypass events

There were no bypass events associated with the STP during the reporting period.

74.4 Discharge compliance with permit limits

Table 74-C: Compliance summary

Parameter	Ammonia	BOD5	Chlorine	Nitrogen	Oil and grease	pH	Phosphorous	E coli	Total suspended solids
Permit/EPN limit	mg/L	mg/L	mg/L	mg/L	mg/L	Units	mg/L	MPN/100mL	mg/L
Maximum	22	35	--	30	10	8.5	10	2000	30
90th percentile	--	--	--	--	--	--	--	--	--
50th percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	52	52	--	52	52	52	52	52	52
Number analysed	101	101	--	101	101	104	101	101	101
Statistical summary									
Maximum	37.2	1800.0	0.0	268.9	295.0	9.0	62.9	241960.0	1031.0
90th percentile	25.4	1103.0	0.0	81.5	108.0	7.3	15.4	241960.0	356.0
50th percentile	4.3	95.0	0.0	14.2	8.3	7.0	2.8	24196.0	58.0
Minimum	0.1	5.0	0.0	0.9	1.0	6.4	0.1	10.0	4.0
EPN limit compliance									
% compliance with maximum	84%	48%	--	53%	53%	97%	64%	20%	46%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	94%	--	--	--

Table 74-D: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen (kg)	--	Annual	45588.0
Phosphorous (kg)	--	Annual	8709.9
Method	Flow weighted/composite method		

Table 74-E: Performance analysis (discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance			Reasons for non-compliance	Actions to improve performance
Nitrogen	21/08/2024 4/09/2024			Nitrogen, BOD and TSS exceedances were likely attributable to capital works, which involved the construction of an additional secondary clarifier and new sludge dewatering process.	Upgrades were completed in March 2025 (see Section 74.12).
BOD	10/07/2024 17/07/2024	21/08/2024 4/09/2024			
TSS	10/07/2024 17/07/2024 24/07/2024 14/08/2024	21/08/2024 4/09/2024 19/02/2025			
<i>E. coli</i>	3/07/2024 10/07/2024 17/07/2024 31/07/2024 7/08/2024 24/07/2024 14/08/2024 21/08/2024	25/09/2024 2/10/2024 16/10/2024 9/10/2024 23/10/2024 30/10/2024 6/11/2024 13/11/2024	2/01/2025 26/02/2025 5/03/2025 12/03/2025 26/03/2025 2/04/2025 9/04/2025 23/04/2025	Exceedances would be attributable to maintenance issues with the UV system (refer to Table 74-L for specifics). <i>E. coli</i> exceedances could also be attributed to some solids carryover from the secondary clarifier during the capital works project.	UV system has been repaired and is operational (refer to Table 74-L for specifics). Upgrades were completed in March 2025 (see Section 74.12).

Effluent compliance parameter	Date(s) of non-compliance			Reasons for non-compliance	Actions to improve performance
	28/08/2024 4/09/2024 11/09/2024	20/11/2024 27/11/2024 4/12/2024	30/04/2025 7/05/2025		
Phosphorus	21/08/2024			Elevated phosphorus likely due to tankered waste receipt. The process is also not designed for biological phosphorus removal and there is no dosing infrastructure for chemical phosphorus removal.	No specific actions.

No other parameters had exceedances in the reporting period.

74.5 Reuse annual reporting

No Recycled Water Scheme associated with this STP.

74.6 Ambient monitoring program

Table 74-F: Program details

Program	Ulverstone STP Ambient Monitoring Plan as per EPN 9573/1 variation.
Status	Ongoing biennial, seasonal (winter and summer) ambient water quality and biological monitoring within the Bass Strait receiving environment.
Update	Seasonal ambient water quality and biological monitoring was completed during the reporting period.
Comments	<p>Ambient water quality and biological monitoring within the Bass Strait receiving environment was completed in winter (August and September 2024) and in summer (December 2024). An Ambient Monitoring Report (AMR) detailing the results of ambient monitoring has been provided to the EPA. The summarised findings of the AMR are provided below:</p> <ul style="list-style-type: none"> Field water quality monitoring detected no significant impacts of the Ulverstone STP effluent discharge on temperature, salinity, dissolved oxygen, turbidity, or pH beyond the immediate vicinity of the outfall. Ammonia concentrations (as a toxicant) remained below ANZG toxicant default guideline values (TDGVs) at all sites on both monitoring occasions. Intermittent increases in nitrogen and phosphorus concentrations were observed, particularly in September 2024. These elevations were seasonal and linked to variations in effluent quality and are likely a result of increased nutrients in the industrial trade waste component of the effluent discharge. Pathogen monitoring revealed notable increases in enterococcus and <i>E. coli</i> concentrations in the receiving environment. Elevations in enterococcus above the EPA low risk guideline value for recreational waters were observed out to the 600 m and reference sites in September 2024, and at all sites to the northwest in December 2024. Exceedances in <i>E. coli</i> above the EPA low risk guideline value for recreational waters was observed within 100 m of the outfall in September 2024, and only at the outfall location in December 2024. No significant levels of pathogen indicator organisms were observed at either of the beach monitoring sites (Picnic Point Beach and Buttons Beach) on either monitoring occasion. Benthic habitat surveys found no significant changes in the structure of marine communities compared to previous surveys, indicating habitat stability. The western side of the outfall remains dominated by rocky reef with dense kelp cover including the common kelp <i>Ecklonia radiata</i> and seasonal giant kelp <i>Macrocystis pyrifera</i>, while the eastern side consists of cobble and sandy substrates with various seaweed <i>Caulerpa species</i>. Sediment accumulation was detected at reference sites, suggesting that particulate deposition is not solely driven by STP effluent. <p>The AMR findings indicate that the combined STP effluent and trade waste discharge is contributing to elevated pathogen levels in the Bass Strait receiving environment, posing potential risks to Protected Environmental Values related to recreation and seafood harvesting. The magnitude of this impact is directly influenced by trade waste discharges from the industrial trade waste customer. Although the combined discharge continues to have intermittent effects on nutrient and pathogen concentrations within the receiving environment, no sustained impacts on physical water quality parameters or benthic habitat structure were identified during the monitoring.</p>

74.7 Groundwater monitoring

No groundwater monitoring program associated with the STP.

74.8 Inflow and infiltration (I&I)

The latest revision to the TasWater Inflow and Infiltration Management Plan includes details of the actions undertaken statewide to address I&I issues. Update to the actions completed will be provided in the next revision due September 2024.

A Multi Criteria Assessment was undertaken by TasWater in 2024 to prioritise I&I investigation and works state-wide. This catchment was ranked 10 out of 108 in priority. Works this period included:

- Field investigation and defect identification ongoing

74.9 Sludge and biosolids

The latest revision to the Sewage Sludge Management Plan (SSMP) includes full details of the actions undertaken during the reporting period. This STP was assessed as compliant with the 2024–25 SSMP.

Significant upgrades to the dewatering process, completed towards the end of the last reporting period as well as receiving liquid sludge from Pardoe (from March 2025), resulted in significantly more biosolids being produced from this site compared with previous years. The new dewatering equipment has also been producing a much drier biosolid product with an average total solids content of 17.9% up from 14% the previous year.

During the reporting period, liquid sludge was received from Latrobe, Pardoe and Port Sorell STPs. The total sludge volume received at Ulverstone STP was 1893kL.

Biosolids are removed regularly from site, no stockpiling occurs.

Table 74-G : Biosolids sludge classification

Parameter	Number of samples	Maximum (mg/kg)	Mean (mg/kg)	Minimum (mg/kg)	BACC (mg/kg)	Contaminant classification
Arsenic	12	18.8	8.4	4.4	17.5	A
Cadmium	12	1.0	0.7	0.5	1.0	B
Chromium	12	37.3	27.0	18.9	38.1	A
Copper	12	246.0	196.7	164.0	244.9	B
Lead	12	111.0	29.1	15.2	81.3	A
Mercury	12	0.5	0.3	0.0	0.5	A
Nickel	12	31.1	24.6	16.7	33.3	A
Zinc	12	753.0	612.5	448.0	768.2	B

Table 74-H: Volume and disposal destination

Quantity (DST)	Average solids content (%)	Stabilisation method	Stabilisation grade	Contamination grade	Biosolids classification	End use destination
403.0	17.9	None	U/C	B	U/C	Dulverton Compost

Notes:

DST = Dry solid tonne. U/C = Unclassified

BACC = Biosolids Adjusted Contaminant Concentration

Table 74-I: Liquid sludge transfers received at Ulverstone STP

STP transferred from	Volume received (kL)
Latrobe STP	1048
Pardoe STP	795
Port Sorell STP	50
TOTAL	1893

74.10 Non-compliance with other permit requirements

Table 74-J: EPN non-compliances

EPN condition	Description of non-conformance	Future actions to be taken
EF3 Effluent quality limits for discharge to water	Discharge compliance with permit limits	See section 74.4 Discharge compliance with permit limits and Performance Analysis
EM1, EM2 & EM3 Effluent Management, Reuse Feasibility Study and Discharge Management Plan	Reuse Feasibility Study and Discharge Management Plan overdue.	TasWater acknowledges the non-compliance associated with the DMP condition. We are working towards the intent of the EPN condition to prioritise discharge risk reduction projects in line with our EPA endorsed Wastewater Risk Management Plan and Price and Service Plan process.

74.11 Complaints and incident reporting

Table 74-K: Complaints reporting

Date	Category	Details	Mitigation actions
6/02/2024	Odour	Sewer odour reported to be coming from STP	TasWater investigated and determined that there were no process upsets at the time of this complaint. However, elevated odour on this day could have been attributed to Ulverstone STP upgrade activities. No further complaints received.

Table 74-L: Incident reporting

Date	Category	Details	Mitigation actions
10/06/2025	Mechanical	Gravity thickener offline due to damaged internal rake system.	Drained and cleaned thickener. Repairs to rake completed and thickener back online by 13/06/2025.

Date	Category	Details	Mitigation actions
18/03/2024 – 15/05/2025	Mechanical	UV system offline due to malfunctioning ballasts, wipers and globes.	TasWater engaged a contractor to complete the repairs; however, several specialised parts were required. Due to their specialised nature, ordering these parts added delays to the repair timeline. The required components were eventually sourced, and the UV system was returned to service on 15 May 2025.

74.12 Any other relevant information

Table 74–M: Projects or significant operational events that occurred in FY 2024–25:

Project or significant operational event	Progress
Mersey Central Coast Sewerage Regional Master Plan	The Mersey Central Coast Sewerage Regional Master Plan has been completed and includes the short term and long term considerations for the Ulverstone STP. Considerations include additional upgrades to inlet works, treatment capacity and disinfection improvements, as well incorporation of the Turners Beach STP transferred inflows.
Ulverstone STP Upgrade	Completed March 2025. The STP has been upgraded to improve its efficiency and capacity to improve environmental outcomes and cater for future growth. The upgrade included a new clarifier, modernised pumps and a new sludge de-watering facility.

For further information on Ulverstone STP please contact TasWater on 13 6992

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